

REMARKS

Claims 1-8 are pending in the application.

Drawings

In Fig. 6, step S602, "?" has been deleted to place it in better form for U.S. practice.

The Examiner is respectfully requested to approve this drawing change.

Embodiments of the Present Invention

An embodiment of the present invention is directed to a failure diagnostic system for an exhaust pressure increasing device that includes: an intake channel and an exhaust channel in communication with a cylinder of an internal combustion engine; an the exhaust pressure increasing device that increases an exhaust system pressure of said exhaust channel; an intake system pressure detecting device provided in said intake channel, for detecting an intake system pressure; an intake valve that selectively allows and prohibits communication between the intake channel and the cylinder; and an exhaust pressure increase failure diagnostic section.

The exhaust pressure increase failure diagnostic section determines as to whether the exhaust pressure increasing device has failed according to the detected intake pressure obtained at a time within a predetermined period of time since the intake valve has

allowed the intake channel to communicate with the cylinder, and a predetermined failure diagnosis reference range.

Claim Rejections - 35 U.S.C. § 102

Claims 1-3 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Bale et al. (USP 6,687,601). This rejection is respectfully traversed.

Bale discloses a system for diagnosing an air handling mechanism of an internal combustion engine. As shown in Fig. 1, Bale discloses: an intake conduit 20 and an exhaust conduit 32 in communication with an engine; an exhaust throttle 66 (corresponds to the "exhaust pressure increasing device" recited in claim 1 of the present application) that potentially increases an exhaust pressure in the exhaust conduit 32; an air pressure sensor 102 that detects a pressure insider the intake conduit 20; an engine 12 that generally includes an intake valve; and a control computer 42 for detecting failure in an air handling mechanism including the exhaust throttle 32.

As disclosed in Fig. 2, the control computer 42, in step 156, produces an air handling system actuator command AC for commanding the exhaust throttle 62 to close from a fully open position to a 50% closed position (col. 7, lines 56-59), and after a predetermined period of time T, in step 160, determines a position AP which corresponds to the exhaust throttle position signal

generated by a position sensor 72 (col. 8, lines 16-19). Then, in step 162, the control computer 42 determines an engine or air handling system operating parameter AHOP separate from the air handling mechanism position AP determined in the previous step (col. 8, lines 23-27). In step 164, the control computer 42 diagnoses the operation of the air handling mechanism being tested, and produces a fault condition value as a function of AC, AP, and AHOP (col. 8, lines 63-66).

Bale also discloses in TABLE 1 that when diagnosing operation of the exhaust throttle 66, intake air pressure IAP can be used as the air handling system operating parameter.

Bale, however, does not diagnose the operation of the exhaust throttle 66 "according to the detected intake pressure obtained at a time within a predetermined period of time since the intake valve has allowed the intake channel to communicate with the cylinder." Accordingly, Bale does not disclose or suggest the "exhaust pressure increase failure diagnostic section" as recited in claim 1.

Claims 2 and 3, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that claim 8 is allowable over the prior art of record.

Applicants also appreciate the Examiner's indication that claims 4-7 would be allowable if rewritten in independent claim form including all of the limitations of the base claim and any intervening claims.

Claim 4 has been amended in independent claim form including all of the limitations of base claim 1 to place it in condition for allowance.

Claims 5-7, dependent on claim 4, are allowable at least for their dependency on claim 4.

A favorable determination by the Examiner and allowance of claims 4-7 is earnestly solicited.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

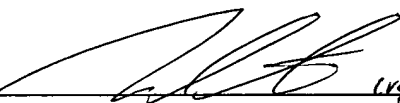
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (Reg. No. 40,417) at the telephone number of the undersigned below, to conduct an interview

in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
for Terrell C. Birch, #19,382 (reg. #40,414)

TCB:MH/mh:pjh
0649-1038PUS1

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Attachment: One (1) Replacement Drawing Sheet - Fig. 6

AMENDMENTS TO THE DRAWINGS

Attached hereto is one (1) corrected drawing sheet that complies with the provisions of 37 C.F.R. § 1.84. The corrected drawing sheet incorporates the following drawing changes:

In Fig. 6, step S602, "?" has been deleted.

It is respectfully requested that the corrected drawing sheet be approved and made a part of the record of the above-identified application.